U2 HP Turbine Upgrade Acceptance Test Results Summary

	Acceptance Tests		Confirmation Tests				Pre-
	Test 7	Test 8	Test 9	Test 10	Average	Gaurantee	Upgrade
HP Turbine Efficiency (%)	92.85	92.83	92.72	92.80	92.80	92.20	83.48
	92.84 (Δ0.08) 92.76				+0.6%		
HP TurbineWheel Power (Mw)	302.9	304.5	300.4	304.4	303.02	299.0	259.4
	303.7 (Δ1.4) 302.3				+4.0mw		
Throttle Flow (kpph)	7,074	7,078	7,063	7,070	7,071	6,900	6,412
	7076 (Δ9.5) 7066.5				171 Kpph		
IP Turbine Efficiency (%)	92.01	92.06	92.17	91.05	91.82		91.23
Net Turbine Cycle Heat Rate (Btu/kwh)	7,701	7,636	7,671	7,676	7,671	7,683	7,807
Gross Power (Mw)	989.4	989.5	987.8	988.2	988.7	973.2	875.3

Notes:
All tests conducted at turbine throttle valves wide-open.
Tests 7 & 8 conducted by PGT with test instrumentation. Refer to the Thermal Peerformance Test Results on Intermountain Power Project (IPP) Unit #2 Turbine Cycle test report (April 2002) for additional information.
Tests 9, 10 & upgrade tested using station instrumentation corrected to test instruments readings.
HP turbine efficiency - PGT test uncertainty ±0.346%, enthalpy drop efficiency calculated with inlet conditions measured before stop valves, exhaust measured after balance gland leakage flow mix.
HP turbine wheel power - PGT test uncertainty ±2.508%, throttle flow corrected to design conditions (2412.2 psia, 1000°).
Throttle flow - PGT test uncertainty ±2.510%, corrected to design throttle conditions (2412.2 psia, 1000°).
IP turbine efficiency - Enthalpy drop efficiency calculated with inlet conditions measured before combined reheat valves and exhaust measured at LP-A turbine inlet (PGT), 14th stage extraction (Station).
Net turbine cycle heat rate - PGT test uncertainty ±2.554%, test heat rate was adjusted to PGT test values and corrected to design throttle & reheat conditions, design turbine back-pressure, and contract cycle using station pepse model.
Gross power - PGT test uncertainty ±0.459%, station measurement corrected to PGT test measurements and corrected to design throttle & reheat conditions, design turbine back-pressure, 6.9% reheat pressure drop, and contract cycle using station pepse model.